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<b>(21) International Application Number:</b> PCT/US99/05453  <b>(22) International Filing Date:</b> 12 March 1999 (12.03.99)  <b>(30) Priority Data:</b> 60/080,297                      1 April 1998 (01.04.98)                      US  <b>(71)(72) Applicant and Inventor:</b> CHALMERS, Franklin, S. [US/US]; 2022 Columbia Road N.W. #401, Washington, DC 20009-1304 (US).  <b>(74) Agents:</b> REPPER, George, R. et al.; Rothwell, Figg, Ernst & Kurz, Suite 701 East, 555 13th Street N.W., Columbia Square, Washington, DC 20004 (US).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> METHOD OF PROCESSING SULFUR-CONTAINING MATERIALS DERIVED FROM FLUE GAS DESULFURIZATION OR OTHER SOURCES  <b>(57) Abstract</b>  <p>A method and apparatus for processing sulfur-containing material derived from sulfur-containing, carbon-containing fuel or gaseous combustion product of sulfur-containing, carbon-containing fuel. A calcium sulfide-containing mixture derived from the source is provided by reacting sulfur-containing material in the source with a calcium-containing material so as to produce the calcium sulfide-containing mixture further containing impurities. A majority of the calcium sulfide from the calcium sulfide-containing mixture or other source of calcium sulfide is leached in a first aqueous solution containing hydrogen sulfide in an amount sufficient to dissolve the majority of the calcium sulfide in the first aqueous solution, so as to form a second solution containing calcium hydrosulfide. The second solution containing the calcium hydrosulfide is separated from the impurities, and calcium carbonate or calcium hydroxide is precipitated from the second solution.</p>		

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